

Response to Office Action dated August 16, 2004

Serial No. 10/773,012; filed February 4, 2004

Inventor: Lutz

Art Unit: 3671

Page 5

**Amendments to the Claims:**

This listing of the claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

Cancel claims 1-9.

10. (Currently Amended) A portable vibratory screed machine, comprising:

(A) a screed blade;

(B) a machine frame mounted on the screed blade having a reference structure;

(C) an engine including a rotational output and an engine housing being mounted on the reference structure via a mount that surrounds a drive shaft that is rotationally coupled to the engine output;

(D) a vibratory assembly which is located remote from the engine and which impacts vibrations to the screed blade;

(E) a drive shaft that transmits torque from the engine output to the vibratory assembly;

(F) an engine mount that surrounds the drive shaft and that supports the engine on the machine frame the vibratory assembly being driven to vibrate by the drive shaft;

(G) a reference structure that is at least indirectly supported on the screed blade; and

(HD) a vibration restraint which is attached to the engine housing and which is attached to the reference structure at a location that is spaced from the engine mount thereby to restrain the engine from vibrating in a direction that is at least generally parallel to a central axis of the drive shaft~~on configured to restrain vibration of the engine, the vibration restraint directly coupling the engine housing to the reference structure at a location that is spaced apart from the mount.~~

11. (Currently Amended) The portable vibratory screed machine of claim 10, wherein the reference structure includes a mount plate of the machine frame on which the engine mount is supported, and wherein the restraint has a first end attached to the engine housing and a second end terminating in a flange that is configured to receive fasteners coupling the flange to the mount plate.

12. (Original) The portable vibratory screed machine of claim 11, wherein the restraint comprises a plate having first and second ends, the first end being directly coupled to the engine housing and the second end being directly coupled to the mount plate by the fasteners.

13. (Original) The portable vibratory screed machine of claim 12, wherein a portion of the plate is shaped to generally conform to a contour of a mating portion of the engine housing.

Response to Office Action dated August 16, 2004

Serial No. 10/773,012; filed February 4, 2004

Inventor: Lutz

Art Unit: 3671

Page 7

14. (Currently Amended) The portable vibratory screed machine of claim 13, wherein the restraint is configured to restrain vibration in a direction generally parallel to the central axis of the drive shaft independent of the engine mount~~drive~~ shaft.

15. (Original) The portable vibratory screed machine of claim 10, wherein, when the engine operates at a speed of 5,000 to 6,000 rpm, the vibration restraint is operable to at least double an operational life of the engine relative to an engine of the same portable vibratory screed machine without a vibration restraint.

16. (Original) The portable vibratory screed machine of claim 15, wherein the vibration restraint is operable to quadruple a life of the engine.

17. (Original) The portable vibratory screed machine of claim 10, wherein, when the engine operates in a range of 5,000 to 6,000 rpm, the vibration restraint is operable to reduce engine vibration by at least forty percent.

18. (Original) The portable vibratory screed machine of claim 10, wherein, when the engine operates in a range of 5,000 to 6,000 rpm, the vibration restraint is operable to reduce engine vibration by at least twenty-five percent.

Response to Office Action dated August 16, 2004

Serial No. 10/773,012; filed February 4, 2004

Inventor: Lutz

Art Unit: 3671

Page 8

19. (Original) The portable vibratory screed machine of claim 10, wherein, when the engine operates in a range of 5,000 to 6,000 rpm, the vibration restraint is operable to extend a life of the engine to at least 200 operating hours.

20. (Original) The portable vibratory screed machine of claim 10, wherein the vibrating restraint comprises a metal plate having first portion and a second portion, the first portion being inclined relative to the second portion, and a flange coupled to the second portion and having openings configured to receive fasteners coupling the flange to the reference structure.

21. (Currently Amended) A method of extending a life of operating an engine of a vibratory plate machine, the vibratory plate machine having a screed blade, a machine frame mounted on the screed blade, a vibratory assembly, a drive shaft that couples the engine to the vibratory assembly, and an engine mount that surrounds the drive shaft and that supports the engine on the machine frame having a drive shaft configured to drive a portable vibratory assembly mounted on a reference structure of a portable vibratory screed machine, the method comprising the acts of:

operating the engine to drive the vibratory assembly to generate vibrations that are imparted to the screed blade; and, during engine operation,

restraining the engine relative to the vibratory assembly in a direction generally parallel to a central axis of the drive shaft using a restraint that couples the engine to a

Response to Office Action dated August 16, 2004

Serial No. 10/773,012; filed February 4, 2004

Inventor: Lutz

Art Unit: 3671

Page 9

reference structure that is supported at least indirectly on the screed plate and that is spaced from the engine mount.

22. (Currently Amended) The method of claim 21, wherein the act of restraining includes reducing vibrational movement of the engine by at least 40 percent relative to operating the same portable vibratory machine without performing the act of restraining.

23. (Original) The method of claim 21, wherein the act of restraining includes providing a restraint having a first end and a second end, coupling the first end of the restraint to the engine, and coupling the second end of the restraint to the reference structure.

24. (New) The portable vibratory screed machine of claim 10, wherein the reference structure is part of the machine frame.

25. (New) The portable vibratory screed machine of claim 24, further comprising a handle assembly that is mounted on the machine frame.

26. (New) The method of claim 21, wherein the reference structure is part of the machine frame.

Response to Office Action dated August 16, 2004

Serial No. 10/773,012; filed February 4, 2004

Inventor: Lutz

Art Unit: 3671

Page 10

27. (New) The method of claim 26, further comprising guiding the portable screed assembly using a handle assembly mounted on the machine frame.

28. (New) A portable vibratory screed machine, comprising:

- (A) a screed blade;
- (B) a machine frame mounted on the screed blade;
- (C) an engine including a rotational output and an engine housing;
- (D) a vibratory assembly located remote from the engine;
- (E) an at least generally vertically extending drive shaft that transmits torque from the engine output to the vibratory assembly;
- (F) an at least generally vertically extending engine mount that surrounds the drive shaft, that extends upwardly from the machine frame, and to which the engine is clamped;
- (G) a reference structure provided on the machine frame and that is spaced from a base of the engine mount; and
- (H) a vibration restraint that is attached to the engine housing and to the reference structure at a location that is spaced from the engine mount thereby to restrain the engine from vibrating in a direction that is at least generally parallel to a central axis of the drive shaft.